

Title (en)
Hydraulic shock absorber

Title (de)
Hydraulischer Stossdämpfer

Title (fr)
Amortisseur de chocs hydraulique

Publication
EP 0807767 A1 19971119 (EN)

Application
EP 97107810 A 19970513

Priority
JP 12032496 A 19960515

Abstract (en)
A hydraulic shock absorber composed of a piston (4) which is slidably installed inside a cylinder (2), said piston having a plurality of oil holes (14,15), a valve means on the compression-side (16) and a valve means on the extension-side (17) at least one thereof including a valve plate, wherein a valve plate urging means (19) is provided urging said valve plate (17a,17b) towards a closing position, said urging means being construed so as to apply an urging force acting on said valve plate inside an imaginary circumference around said oil holes (15). <IMAGE>

IPC 1-7
F16F 9/348

IPC 8 full level
F16F 9/348 (2006.01)

CPC (source: EP US)
F16F 9/3484 (2013.01 - EP US)

Citation (search report)

- [XY] FR 1367698 A 19640724 - RENAULT
- [YA] GB 2106220 A 19830407 - TOKICO LTD [JP]
- [Y] US 4972929 A 19901127 - IVERS DOUGLAS E [US], et al
- [A] GB 2157808 A 19851030 - FICHTEL & SACHS AG
- [A] EP 0632212 A2 19950104 - BILSTEIN AUGUST GMBH CO KG [DE]
- [A] GB 2226620 A 19900704 - TOKICO LTD [JP]
- [A] DE 2103153 A1 19720803 - FICHTEL & SACHS AG

Cited by
EP1416188A1; EP2913460A1; DE102005043988A1; US9540807B2

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